INSTRUCTIONS

-J01619 REV. 5- -99

Kit Numbers 31290-99A through 31296-99A, 31965-93C through 31969-93C, 31973-93C, 32024-95B through 32027-95B, 32036-95C through 32039-95C and 32063-98A

BRAIDED SPARK PLUG WIRE KITS

General

These kits are designed for installation on these vehicles:

1998 and later XL1200S

32063-98A

1986 and later XL models:

31965-93C 31966-93C 31967-93C
32036-95C 32037-95C 32038-95C
32039-95C

1999 and later DYNA GLIDE® models

31290-99A 31291-99A 31292-99A
31293-99A 31294-99A 31295-99A
31296-99A

1985 and later SOFTAIL® and 1991-1998 DYNA-GLIDE® models:

31968-93C 31969-93C 31973-93C
32024-95B 32025-95B 32026-95B
32027-95B

***Kit contents: (SOFTAIL® and* DYNA-GLIDE®)**

QTY	DESCRIPTION
1	Cable, Spark Plug, Long
1	Cable, Spark Plug, Short
3	Strap, Cable
1	Ground Harness
1	Clip, Adhesive Backed

31965-93C, 31292-99A and 31968-93C: red with silver stripe
31966-93C, 31291-99A and 31969-93C: silver with black stripe
31967-93B, 31290-99A and 31973-93C: gold & silver w/black stripe
32038-95C, 31294-99A and 32026-95B: silver
32037-95C, 31295-99A and 32025-95B: red
32036-95C, 31296-99A and 32024-95B: blue
32039-95C, 31293-99A and 32027-95B: black

Kit contents : (All XL's except XL1200S)

QTY	DESCRIPTION
1	Cable, Spark Plug, Long
1	Cable, Spark Plug, Short
3	Strap, Cable
1	Ground Harness
1	Clip, Adhesive Backed

Kit contents for XL1200S

QTY	DESCRIPTION
2	Cable, Spark Plug, Long
2	Cable, Spark Plug, Short
6	Strap, Cable
1	Ground Harness, Left
1	Ground Harness,Right
2	Clip, Adhesive Backed

NOTE

Make note of the location of existing spark plug wires before disconnection. Reference them when installing new wires.

Installation - Dyna Models

⚠WARNING

To avoid accidental start-up of motorcycle, and possible personal injury, disconnect the battery cables (negative cable first) before performing any of the following procedures. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

1. Disconnect the battery cables, negative cable first.

⚠WARNING

Never disconnect a spark plug cable with the engine running. If you disconnect a spark plug cable with the engine running, you could receive an electric shock from the ignition system which could cause death or serious injury.

CAUTION

When disconnecting spark plug cables, always grasp and pull on the rubber boot at the end of the cable . Do not pull on the cable itself as this could damage the cable.

2. See Figure 1. Disconnect spark plug cables from coil and spark plugs.

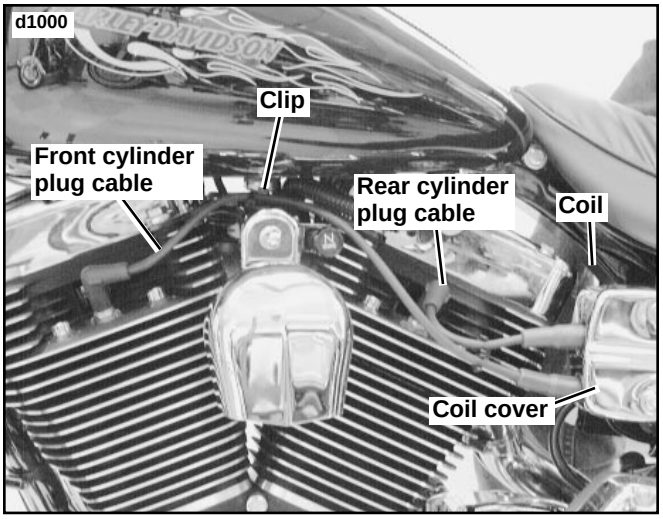

Figure 1. Dyna Spark Plug Cable Routing

3. Remove clip from horn bracket that secures front spark plug cable.

IMPORTANT NOTE

Rear spark plug cable goes to the top coil terminal.

4. Connect new braided spark plug cable to ignition coil and spark plugs. Make sure boots/caps are secured properly. This will ensure that the connections to the plugs and coil are protected against moisture.
5. See Figure 2. Place the clips of the ground wire harness over the ferrules of the plug wires at the coil end.

For 1998 and Earlier Models:

6. Remove one coil mounting screw and washer.
7. Place the ring terminal of the ground wire harness over the screw. Ensure that the prongs of the ring terminal are facing the washer. The washer should be on the screw first, followed by the ring terminal.
8. Replace the coil mounting screw, with the terminal, and tighten.

For 1999 and Later Models:

6. Remove one coil bracket mounting nut.
7. Place the ring terminal of the ground harness over the stud. Ensure that the prongs of the ring terminal are facing the bracket.
8. Replace the coil bracket nut and tighten.
9. See Figure 1. Replace clip securing front cable to horn bracket.

⚠WARNING

Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

10. Connect battery cables to battery, positive cable first.

Installation - Softail Models

⚠WARNING

To avoid accidental start-up of motorcycle, and possible personal injury, disconnect the battery cables (negative cable first) before performing any of the following procedures. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

1. Disconnect the battery cables, negative cable first.

⚠WARNING

Never disconnect a spark plug cable with the engine running. If you disconnect a spark plug cable with the engine running, you could receive an electric shock from the ignition system which could cause death or serious injury.

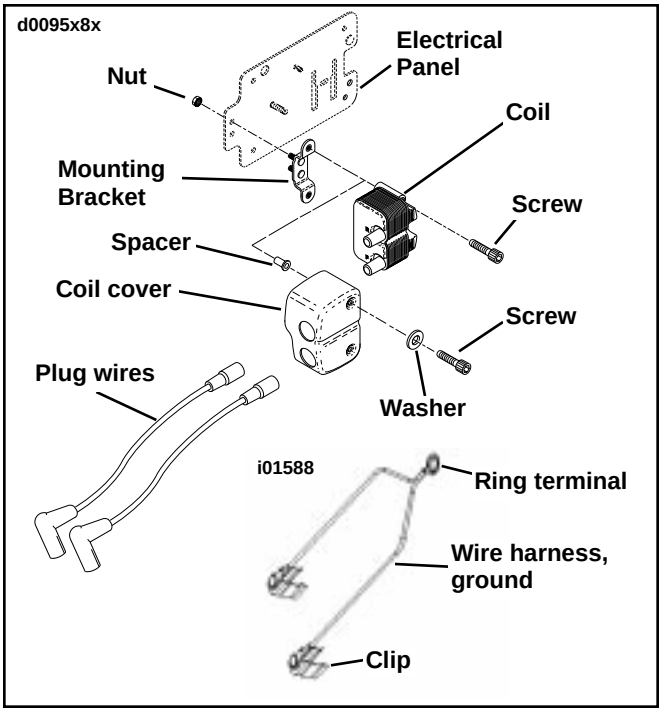

Figure 2. Dyna Braided Wire/Ground Wire

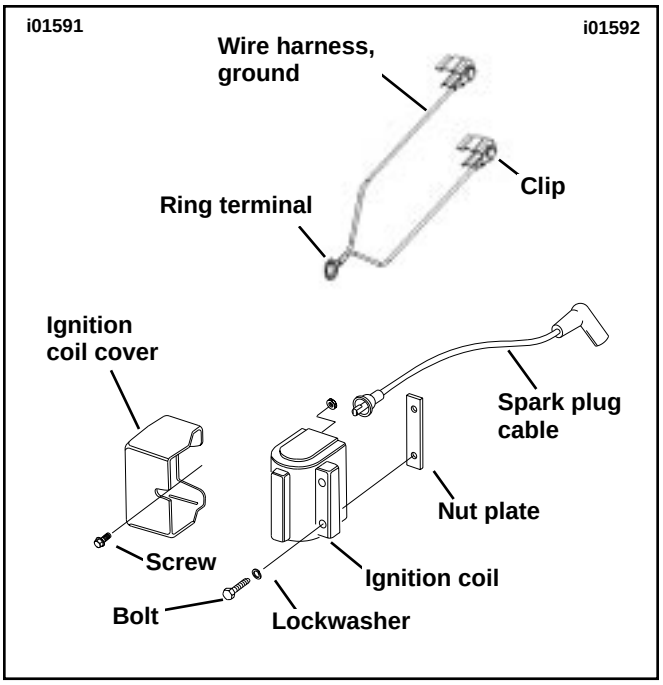

Figure 3. Softail Spark Plug Cables

CAUTION

When disconnecting spark plug cables, always grasp and pull on the rubber boot at the end of the cable . Do not pull on the cable itself as this could damage the cable.

2. See Figure 3. Disconnect spark plug cables from coil and spark plugs. Note the positions of the cables for reassembly.
3. Connect new braided spark plug cable to ignition coil and spark plugs. Make sure boots/caps are secured properly. This will ensure that the connections to the plugs and coil are protected against moisture.

4. Place the clips of the ground wire harness over the ferrules on the coil end of the plug wires.
5. Remove one of the screws holding the coil to the nut plate.
6. Place the ring terminal of the ground wire harness over the screw. Ensure that the prongs of the terminal are facing the plate.
7. Replace the screw, with the terminal, into the coil and tighten.

⚠WARNING

Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

8. Connect battery cables to battery, positive cable first.

Installation - XLH Models (Except for XL1200S

⚠WARNING

To avoid accidental start-up of motorcycle, and possible personal injury, disconnect the battery cables (negative cable first) before performing any of the following procedures. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

1. Disconnect the battery cables, negative cable first.

⚠WARNING

Never disconnect a spark plug cable with the engine running. If you disconnect a spark plug cable with the engine running, you could receive an electric shock from the ignition system which could cause death or serious injury.

CAUTION

When disconnecting spark plug cables, always grasp and pull on the rubber boot at the end of the cable . Do not pull on the cable itself as this could damage the cable.

2. See Figure 4. Disconnect spark plug cables from coil and spark plugs noting position of wires. Remove rear wire from clip.
3. Connect new braided spark plug cable to ignition coil and spark plugs. Make sure boots/caps are secured properly. This will ensure that the connections to the plugs and coil are protected against moisture.
4. Place the clips of the ground wire harness over the ferrules on the coil end of the plug wires.
5. See Figure 4. Remove upper engine mount bolt and place ring terminal over bolt.

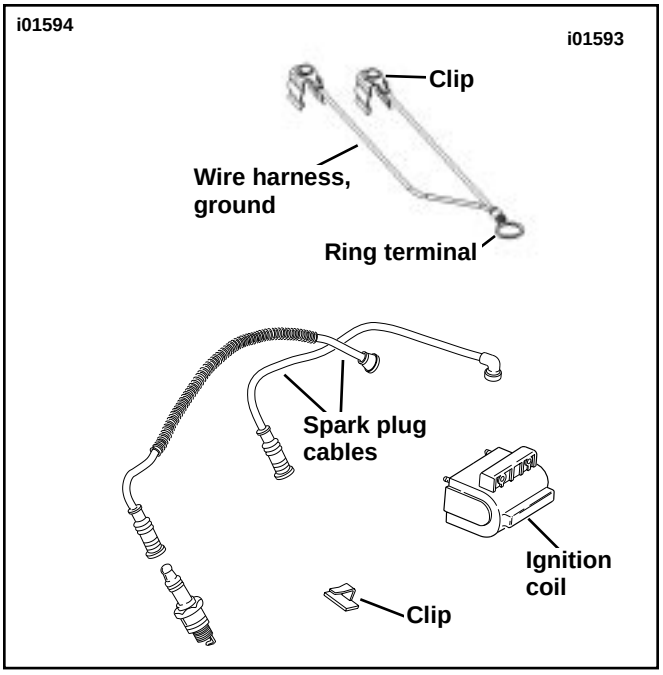

Figure 4. XLH Spark Plug Wires

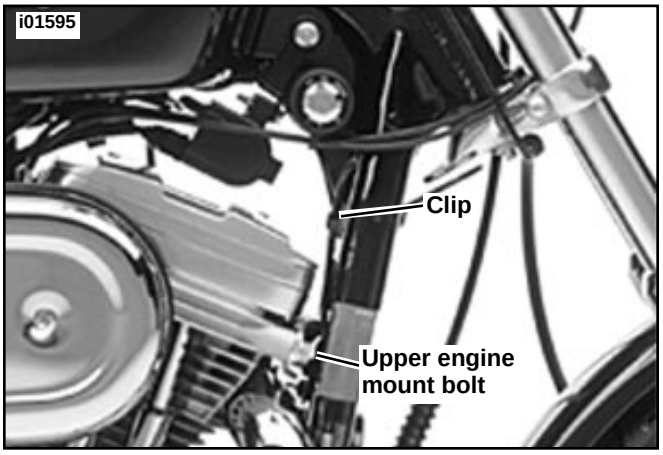

Figure 4. XLH Braided Wire Mounting

6. Install bolt with ring terminal and tighten to 30-35 ft-lbs (41-47 Nm) torque.
7. Mount ground wire harness wires to the frame with a clip.

⚠WARNING

Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion resulting in personal injury.

8. Connect battery cables to battery, positive cable first.

Installation - XL 1200S Models

⚠WARNING

To avoid accidental start-up of motorcycle, and possible personal injury, disconnect the battery cables (negative cable first) before performing any of the following procedures. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

1. Disconnect the battery cables, negative cable first.

⚠WARNING

Never disconnect a spark plug cable with the engine running. If you disconnect a spark plug cable with the engine running, you could receive an electric shock from the ignition system which could cause death or serious injury.

⚠WARNING

To avoid personal injury, do not smoke or allow open flame or sparks anywhere in the area when working on fuel system components. Gasoline is extremely flammable and highly explosive. Follow all Service Manual instructions for proper assembly and disassembly procedures. Failure to do this could result in death or serious injury.

1. Remove fuel tank following instructions in appropriate Service Manual. Place tank in a safe location where it will not be damaged or scratched. Set all fuel tank hardware aside for later reinstallation.

IMPORTANT NOTE

*When installing spark plug wires, remove only **one wire at a time** and install the new braided wire that replaces it before moving on to the next wire. As each original wire is removed, check its length against each braided wire to find the corresponding braided wire that matches its length exactly.*

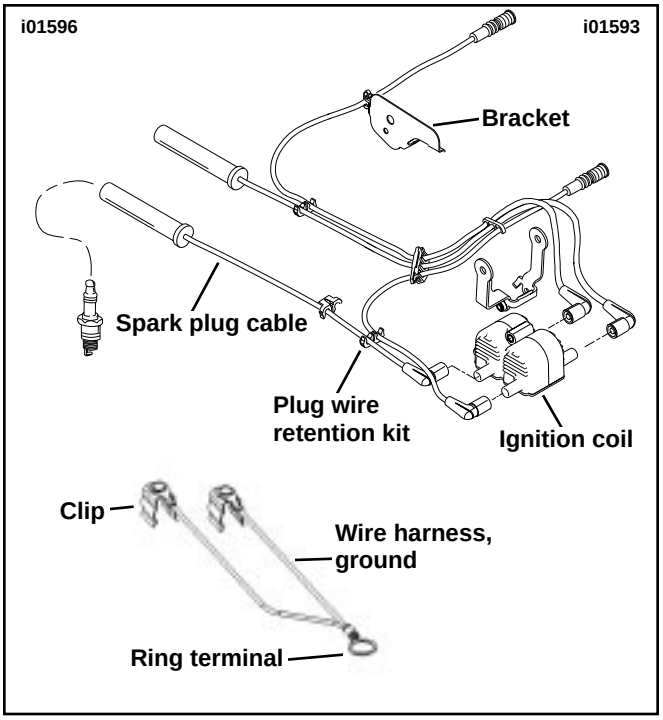

Figure 5. XL1200S Spark Plug Cables

2. See Figure 6 for spark plug wire routing. Remove spark plug wire clips indicated. These clips will be replaced with cable straps included in kit after wires are installed.
3. Follow routing shown in Figure 6 and install spark plug wires. Make sure boots are seated firmly on plugs and into the coil towers.
4. Install cable straps at positions indicated in Figure 6.
5. See Figure 5. Place the clips of the ground wire harness over the end ferrules of the plug wires.

NOTE

As there are four spark plug cables, there are two ground wire harnesses. These two differ only in length.

6. See Figure 4. Remove upper engine mount bolt and place both ring terminals over bolt.

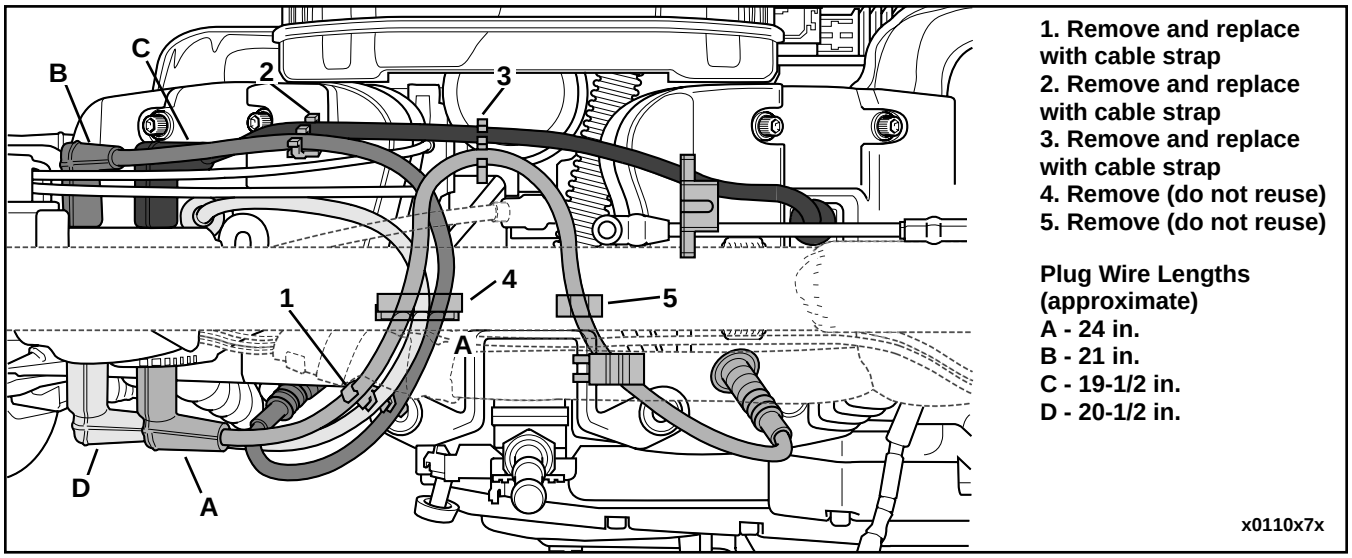

Figure 6. XL1200S Spark Plug Locations

7. Install bolt with ring terminals and tighten to 30-35 ft-lbs (41-47 Nm) torque.
8. Mount ground wire harness wires to the frame with a clip.
9. Reassemble fuel tank to frame following Service Manual procedures.

⚠WARNING

Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion resulting in personal injury.

8. Connect battery cables to battery, positive cable first.